

The opposite sides of the continent, and
I have found that in the different branches
of Nat. History there are no fixed or
parallel rules respecting the limits of
species - While botanists with their more
extensive collections, seem to be gradually
uniting species more and more, Zoologists
are refining and subdividing them in ex-
actly the other way. This I think arises
partly from the comparatively small num-
ber of specimens they can obtain -

It appears to me that certain specific
characters common to both plants and ani-
mals, such as size, color, form, must admit
of as much variety in one class as the other
and that species founded on these must
have equal value in each -

If you will assist me in the way
I have requested it will much oblige

Yours Respectfully
J. J. Cooper

38
Orange N. J. Oct. 27th

Dear Sir

I take the liberty of troubling
you again to ask your opinion respecting
the enclosed list of Plants of allied if not
identical species from the eastern and west-
ern coasts. I have been doubtful whether
to consider them all as distinct or not.

I know you have lately united some of
them and in your Fl. of N. E. speak of
others as doubtful. As you have probably
since then received more specimens of them
and may from these have been able to come
to definite conclusions I should be glad
to know your present opinions -

To save you trouble it will be sufficient
to mark the sign of equal value, =, be-
tween those you consider the same, but
if you have them, I should be glad to have
any observations you wish to make -

In my report I have occasion to mention many of them and wish to avoid any discrepancy of nomenclature - I have specimens of those marked thus +

In comparing 145 ^{identical} species of native plants from the two sides, I find that with but two exceptions all belong to the Canadian Province, and generally range far north - The exceptions are Daucus pusilla Mich. which is found eastward only north to S. Can. while west it reaches the Columbia River -

But this may have been transported by the aid of man. The other Artemisia humilis is said to extend north only to Connecticut, but is credited to the Willamette R. by Nutt. if identical. I wish if I can to show that the identical species of W. T. and the Atlantic are all of the Canadian Province, though I know that in California species common also to the Southern Atlantic states are found which are not of that Province -

Of the 145 species there are many, in fact almost all, varying more or less from those of the same (admitted) species eastward.

I wish if possible to discover the laws of variation within good specific characters, to which they are subject. [One very ^{low} grass seal, seems to be a much larger growth in W. Terr.] For this purpose I intend to make a close comparison of all the species both by specimens and descriptions, where I can get either -

If any corrections of the Fl. of N. A. occur to you bearing on these species I should be glad to know of your opinion -

I intend of course to make it pretty a compilation and to give all authorities, my object being not to decide on species myself but to show the differences, range, variations, &c. of those determined by others -

My attention has been drawn to this by the study of both the plants and animals of